

1. A foam cushion tape, comprising  
a compressible polyurethane foam layer having a first side and an opposite second side;  
a composite reinforcing film comprising an anchoring layer and a reinforcing layer,  
5 wherein the second side of the polyurethane foam is disposed on the anchoring layer of the composite reinforcing film;  
a first adhesive disposed on the first side of the compressible polyurethane foam; and  
a second adhesive disposed on the reinforcing layer of the composite reinforcing film.

2. The tape of claim 1, wherein the compressible polyurethane foam has a thickness of about 5 to about 60 mils (about 125 to about 1500 micrometers).

3. The tape of claim 1, wherein the compressible polyurethane foam has a thickness of about 12 to about 17 mils (about 300 to about 425 micrometers).

4. The tape of claim 1, wherein the foam is open-celled.

5. The tape of claim 1, wherein the anchoring layer is selected from the group consisting of polyvinylidene chloride, polyurethane, copolyester, and nylon, and the reinforcing layer is selected from the group consisting of polyethylene terephthalate, polybutylene terephthalate, polyvinyl, polycarbonate, and polyetherimide.

6. The tape of claim 1, wherein the anchoring layer comprises polyvinylidene chloride and the reinforcing layer comprises polyethylene terephthalate.

7. The tape of claim 1, wherein the composite reinforcing film is formed by co-extrusion of the anchoring layer and the reinforcing layer.

8. The tape of claim 1, wherein the reinforcing layer is acid etched.

9. The tape of claim 1, further comprising a primer layer between the first adhesive and the polyurethane foam.

10. The tape of claim 1, further comprising a release layer disposed on a side of the second adhesive layer opposite to the reinforcing layer.

11. The tape of claim 10, wherein the release layer comprises a release coating, an intermediate layer, and a liner, wherein the release coating is disposed on the second adhesive layer on a side opposite to the reinforcing layer, the intermediate layer is disposed on the release coating on a side opposite to the second adhesive layer, and the liner is

5 disposed on the intermediate layer on a side opposite to the release coating.

12. The tape of claim 11, wherein the release coating further comprises a second intermediate layer disposed on the liner on a side opposite to the intermediate layer, and a second release coating disposed on the second intermediate layer on a side opposite to the liner.

13. A foam cushion tape, comprising  
a compressible, open-celled polyurethane foam layer having a first side and an opposite second side, wherein the compressible polyurethane foam has a thickness of about 5 to about 60 mils (about 125 to about 1500 micrometers);

5 a composite reinforcing film comprising an anchoring layer and a reinforcing layer, wherein

the anchoring layer is selected from the group consisting of polyurethane, nylon, copolyester, and polyvinylidene chloride, and the reinforcing layer is selected from the group consisting of polyethylene terephthalate, polybutylene terephthalate, polyvinyl, 10 polycarbonate, and polyetherimide., and further wherein

the second side of the polyurethane foam is disposed on the anchoring layer of the composite reinforcing film;

a first pressure sensitive adhesive disposed on the first side of the compressible polyurethane foam; and

15 a second pressure sensitive adhesive disposed on the reinforcing layer of the composite reinforcing film.

14. The tape of claim 13, further comprising a release layer disposed on a side of the second adhesive layer opposite to the reinforcing layer.

15. The tape of claim 14, wherein the release layer comprises a release coating, an intermediate layer, and a liner, wherein the release coating is disposed on the second adhesive layer on a side opposite to the reinforcing layer, the intermediate layer is disposed on the release coating on a side opposite to the second adhesive layer, and the liner is  
5 disposed on the intermediate layer on a side opposite to the release coating.

16. The tape of claim 15, wherein the release coating further comprises a second intermediate layer disposed on the liner on a side opposite to the intermediate layer, and a second release coating disposed on the second intermediate layer on a side opposite to the liner.

17. A foam cushion tape, comprising

a compressible, open-celled polyurethane foam layer having a first side and an opposite second side, wherein the compressible polyurethane foam has a thickness of about 5 to about 60 mils;

5 a composite reinforcing film comprising a polyvinylidene fluoride anchoring layer and a polyethylene terephthalate reinforcing layer, wherein the second side of the polyurethane foam is disposed on the anchoring layer of the composite reinforcing film;

a first pressure sensitive adhesive disposed on the first side of the compressible polyurethane foam; and

10 a second pressure sensitive adhesive disposed on the reinforcing layer of the composite reinforcing film.

18. The tape of claim 17, further comprising a release layer disposed on a side of the second adhesive layer opposite to the reinforcing layer, wherein the release layer comprises a release coating, an intermediate layer, and a liner, wherein the release coating is disposed on the second adhesive layer on a side opposite to the reinforcing layer, the intermediate layer is  
5 disposed on the release coating on a side opposite to the second adhesive layer, and the liner is disposed on the intermediate layer on a side opposite to the release coating.

19. The tape of claim 18, wherein the release coating further comprises a second intermediate layer disposed on the liner on a side opposite to the intermediate layer, and a second release coating disposed on the second intermediate layer on a side opposite to the liner.

20. A method for the manufacture of foam cushion tapes for flexographic printing, comprising

casting a curable polyurethane foam composition onto an anchoring layer of a composite reinforcing film having an anchoring layer and a reinforcing layer; and

5 curing the foam composition to form a compressible polyurethane foam; and coating the cured foam with an adhesive on the side opposite to the anchoring layer.

21. The method of claim 20, wherein the cured compressible polyurethane foam has a thickness of about 5 to about 60 mils (about 25 to about 1500 micrometers).

22. The method of claim 20, wherein the cured compressible polyurethane foam has a thickness of about 12 to about 17 mils (about 300 to about 425 micrometers).

23. The method of claim 20, wherein the anchoring layer is selected from the group consisting of polyvinylidene chloride, polyurethane, copolyester, and nylon, and the reinforcing layer is selected from the group consisting of polyethylene terephthalate, polybutylene terephthalate, polyvinyl, polycarbonate, and polyetherimide.

24. The method of claim 20, wherein the foam is open-celled.

25. The method of claim 20, wherein the anchoring layer comprises polyvinylidene chloride and the reinforcing layer comprises polyethylene terephthalate.

26. The method of claim 20, wherein the composite tape is formed by co-extrusion of the anchoring layer and the reinforcing layer.

27. The method of claim 20, wherein the reinforcing layer is acid etched.

28. A method for the manufacture of foam cushion tapes for flexographic printing, comprising

casting a curable polyurethane foam composition onto an anchoring layer of a composite reinforcing film having a polyvinylidene anchoring layer and a polyethylene terephthalate reinforcing layer;

curing the foam composition to form a compressible, open celled polyurethane foam having a thickness of about 12 to about 17 mils (about 300 to about 425 micrometers); and coating the cured foam with an adhesive on the side opposite to the anchoring layer.

29. A foam cushion tape manufactured by the method of claim 20.

30. A foam cushion tape manufactured by the method of claim 28.

31. A method for flexographic printing using the tape of claim 1, comprising adhering the first adhesive layer to a printing cylinder, and adhering the second adhesive layer to a flexible printing plate.

32. A method for flexographic printing using the tape of claim 15, comprising adhering the first adhesive layer to a printing cylinder, and adhering the second adhesive layer to a flexible printing plate.

33. A method for flexographic printing using the tape of claim 19, comprising adhering the first adhesive layer to a printing cylinder, and adhering the second adhesive layer to a flexible printing plate.

0951614-07-001